Remarks

I.   Status of claims

Claims 1-21 were pending.

Dependent claims 22-29 have been added. New claim 22 substantially tracks claim 18. New claim 23 substantially tracks claim 20, as originally filed. The features recited in new claim 24 are described on page 18, line 3, through page 19, line 21, of the pending application. The features recited in new claim 25 are described on page 10, line 28, through page 12, line 21, of the pending application. The features recited in new claims 26 and 27 are described on page 12, line 10, through page 13, line 11, of the pending application. The features recited in new claims 28 and 29 are described on page 9, line 26, through page 10, line 5, of the pending application.

Independent claims 1, 15, and 21 have been amended. The features added by these amendments are described on page 3, lines 4-6, and page 8, lines 9-15, of the pending application.

Claims 11, and 20 have been rewritten in independent form.

II.   Claim rejections under 35 U.S.C. § 102

The Examiner has rejected claims 1-3, 15-17, and 21 under 35 U.S.C. § 102(e) over Ramaswamy (U.S. 6,424,621). In particular, the Examiner has asserted that:

> Ramaswamy teaches the claimed "system ... services" corresponds to the network system shown in figures 3 and 7. The claimed "shared memory" corresponds to shared memory 34. The claimed "plurality of network devices" corresponds to circuitry including processors 24 having cache memory, switching processor 44 and control processor 42. Shared memory 34 is interconnected to processors 24, switching processor 44 and control processor 42. Control processor 42 performs the function of load balancing and network management functions. Processors 24 perform a memory caching function.

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A.   Independent claim 1

Independent claim 1 has been amended and now recites that the shared memory facility provides a physical transport medium for routing packets between the network devices. The Examiner has asserted that the shared memory 34 in Ramaswamy's system corresponds to the shared memory recited in claim 1 and that the control and switching processors 42, 44 in Ramaswamy's system correspond to the network devices recited in claim 1. The shared memory 34, however, does not provide a physical transport medium for routing packets between the control and switching processors 42, 44. Indeed, in Ramaswamy's system, the shared memory 34 is used only to communicate the information contained in the routing table 62, the configuration table 64, and the connection table 66 between the control processor 42 and the switching processors 44; packets are not routed through the shared memory 34.

Ramaswamy explains that the packet engine 72 of the switching processor 44 receives a packet from the network interface 37 and passes the received packet to the packet filter 74 (see col. 9, lines 7-11). The packet filter 74 determines which back-end application server should receive the packet based at least in part on the current load conditions indicated by the configuration table 64, which is stored in the shared memory 34. The packet filter 74 rewrites the MAC address and optionally rewrites the IP address and the TCP/UDP port number in the header of the packet to reflect the address of the selected application server (see col. 9, lines 59-64). The packet filter 74 then returns the modified packet back to the packet engine 72 for forwarding to the appropriate network interface 37 (see col. 9, line 66, through col. 10, line 1). Thus, packets only pass between the network interfaces 37 and the corresponding switching processors 44; packets are not routed through the shared memory 34.

For at least this reason, the Examiner's rejection of independent claim 1 under 35 U.S.C. § 102(e) over Ramaswamy should be withdrawn.

B.   Claims 2 and 3

Each of claims 2 and 3 incorporates the features of independent claim 1 and therefore is patentable over Ramaswamy for at least the same reasons explained above.

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C.   Independent claim 15

Independent claim 15 has been amended and now recites the step of routing data packets between the network devices through the shared memory facility. Claim 15 is patentable over Ramaswamy for the same reasons explained above in connection with claim 1.

D.   Claims 16 and 17

Each of claims 16 and 17 incorporates the features of independent claim 15 and therefore is patentable over Ramaswamy for at least the same reasons explained above.

E.   Independent claim 21

Independent claim 21 has been amended and now recites that the computer-readable instructions cause the computer system to route data packets between the network devices through the shared memory facility. Claim 21 is patentable over Ramaswamy for the same reasons explained above in connection with claim 1.

III.   Claim rejections under 35 U.S.C. § 103

The Examiner has rejected claims 4-14 and 18-20 under 35 U.S.C. § 103(a) over Ramaswamy. In particular, the Examiner has asserted that:

> Ramaswamy teaches the invention substantially as claimed as discussed above in section 4. The examiner believes most, if-not-all, dependent claim features are taught by Ramaswamy. However, in the event a claim feature(s) is not expressly or inherently taught by the reference applicant should consider the claim feature(s) in light of the Official notification put forth below.

> Official notice is taken of prior art (i.e., network devices) teaching any claim feature not specifically discussed above. That is, any prior art (including that of record) teaching the more well-known claim features commonly found in the

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dependent claims. The claim features, while part of the invention appear to be well know and their relevance not essential to the main invention found in the independent claim(s). Thus, a detailed discussion of the well-known claim features(s) is not warranted at this time. The prior art features including global memory, local memory, processors, kernels, stacks, etc. corresponding to the presently claimed features improve the overall network reliability, speed and capacity. It would have been obvious to one having ordinary skill in the art at the time of the invention to combine Ramaswamy with the officially taken prior art in order to improve network performance.

1.   The Examiner has failed to establish a proper *prima facie* case of obviousness

For the purpose of the following discussion, the examiner is reminded that:

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not on applicants' disclosure.

MPEP § 706.02(j). Furthermore, as pointed out by the Patent Office Board of Appeals and Interferences:

> The examiner should be aware that "deeming" does not discharge him from the burden of providing the requisite factual basis and establishing the requisite motivation to support a conclusion of obviousness.

Ex parte Stern, 13 USPQ2d 1379 (BPAI 1989).

With this rejection, the Examiner has failed to provide the requisite factual basis and failed to establish the requisite motivation to support his deemed conclusion that the features recited in claims 4-14 and 18-20 would have been obvious to one of ordinary skill in the art at the time of the invention. The Examiner merely asserts without any basis that the features recited in claims 4-14 and 18-20 are an obvious over unspecified prior art. The Examiner is requested to cite prior art references that support his assertions. Alternatively, if the

Examiner is aware of facts within his personal knowledge that provide the requisite factual basis and establishes the requisite motivation to support his deemed conclusion that the features recited in claims 4-14 and 18-20 would have been obvious, the Examiner is requested to provide an affidavit in accordance with 37 CFR § 1.104(d)(2). Otherwise, the Examiner's rejection of claims 4-14 and 18-20 should be withdrawn for at least this reason.

In addition, under MPEP § 706.02(j), the Examiner is obligated to consider separately the limitations of each of the pending claims. With his rejection of claims 4-14 and 18-20, however, the Examiner has failed to explain how Ramaswamy and the Examiner's unsupported assertions regarding what was known in the prior art renders obvious the features recited in each of the claims 4-14 and 18-20. Since the Examiner has failed to meet his obligation under MPEP § 706.02(j), the Examiner has failed to establish a proper *prima facie* case of obviousness under 35 U.S.C. § 103(a) and the rejections of claim 4-14 and 18-20 should be withdrawn.

2.   In any event, claims 4-14 and 18-20 are patentable over Ramaswamy

i.   Claims 4-10, 18 and 19

Each of claims 4-10 incorporates the features of independent claim 1 and each of claims 18 and 19 incorporates the features of independent claim 15. Claims 4-10, 18, and 19 therefore are patentable over Ramaswamy for at least the same reasons explained above.

ii.   Claims 11-14 and 20

Claim 11, which has been rewritten in independent form, recites that the shared memory interface system of each network device provides a local shared memory network between the network devices, and a global shared memory network between the network devices and one or more remote nodes *by capturing packets from the local communications protocol stacks and routing the captured packets over the shared memory facility.*

Claim 20, which also has been rewritten in independent form, recites the step of providing a local shared memory network between the network devices, and a global shared memory network between the network devices and one or more remote nodes *by capturing*

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packets from local communications protocol stacks of the network devices and routing the captured packets over the shared memory facility.

Ramaswamy's system does not include any means for capturing packets from local communications stacks of the processors 42, 44 and routing the captured packets over the shared memory 34. Indeed, as explained above in connection with claim 1, in Ramaswamy's system, packets are not routed through the shared memory 34. Instead, packets only pass between the network interface 37 and the switching processor 44. Moreover, Ramaswamy does not teach or suggest anything that would have led one of ordinary skill in the art at the time the invention was made to modify his system to route packets over the shared memory 34. Indeed, such a modification would not serve any useful purpose.

For at least these reasons, the Examiner's rejection of claims 11 and 20 under 35 U.S.C. § 103(a) over Ramaswamy should be withdrawn.

Each of claims 12-14 incorporates the features of independent claim 11 and therefore is patentable for at least the same reasons explained above.

3.   Conclusion

For the reasons explained above, the Examiner's rejection of claims 4-14 and 18-20 under 35 U.S.C. § 103(a) over Ramaswamy

IV.   Conclusion

For the reasons explained above, all of the pending claims are now in condition for allowance and should be allowed.

Charge any excess fees or apply any credits to Deposit Account No. 08-2025.

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